

Historic, Archive Document

Do not assume content reflects current scientific knowledge, policies, or practices.

1.96
R31Fsm

WATER SUPPLY OUTLOOK FOR COLORADO AND NEW MEXICO

and
FEDERAL-STATE-PRIVATE COOPERATIVE SNOW SURVEYS

AS OF
April 1, 1981



U.S. DEPARTMENT of AGRICULTURE * SOIL CONSERVATION SERVICE

Collaborating with
COLORADO STATE SOIL CONSERVATION BOARD
STATE ENGINEER of COLORADO
and STATE ENGINEER of NEW MEXICO

Issued by
NORMAN A. BERG
CHIEF
SOIL CONSERVATION SERVICE
WASHINGTON, D.C.

Released by
SHELDON G. BOONE
STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
DENVER, COLORADO

RAY T. MARGO, JR.
STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
ALBUQUERQUE, NEW MEXICO

Report prepared by
BERNARD A. SHAFER,
GARRY L. SCHAEFER,
JOHN L. SPRAGUE,

Snow Survey Supervisor
Assistant Snow Survey Supervisor
Hydrologic Technician

SOIL CONSERVATION SERVICE
SNOW SURVEY UNIT
P.O. BOX 17107
DENVER, COLORADO 80217

Irrigation System Design

Irrigation water management is a very simple concept: "Put the water on when the crop needs it."

There are two main requirements to properly carry out this concept. First, we must have an irrigation system that is designed to deliver water supplies in the right quantities, at the right time, in the right location in the field. Second, the irrigator must have a sound knowledge of water management principles.

A good irrigation system design takes the following factors into account:

1. Soils - Sandy soils are well adapted to sprinkler systems because of high intake rates. Heavy, flat soils are well adapted to surface irrigation systems because the water moves over the surface well. This allows a more even intake throughout the length of the irrigation run. The water holding capacity of the soil must be known to the crop rooting depth.
2. The crops peak consumptive use - This is the average daily rate of use of a crop occurring during a period between normal irrigations when such rate of use is at a maximum. Peak consumptive use usually occurs during the plants fastest growing stage. Most plants use water at a maximum rate during July when the temperature peaks are the highest and the daylight hours are long. There are some exceptions such as winter wheat which may peak during May. Peak consumptive use is expressed in inches of water needed per day.

The soils information and peak consumptive use are used to size an irrigation system. For instance, if we take a soil with a water holding capacity of 2 inches per foot of depth and a crop with a rooting depth of 3 feet we have available for plant use $3 \times 2 = 6$ inches of water. Plants have to work hard to get all of this water out of the root zone. It is therefore common practice to design an irrigation system to irrigate when half of this available water is used. This prevents plant stress and increases yields. In our example we would then replace the water used by the plants when half of our available 6 inches is gone. Therefore, 3 inch net irrigations are needed. Peak consumptive use of plants range from about 0.10 inch to about 0.37 inch per day in Colorado. For our example we will use 0.25 inch per day.

Design an irrigation system as follows: Three inches net available water divided by 0.25 inch use per day equals 12 days water supply. Therefore, an irrigation system capable of putting on 3 inches of water every 12 days is needed. If 48 acres were to be irrigated we would need to be able to irrigate 4 acres each day during the crop's peak consumptive use time.

Early or late in the irrigation season when temperatures are lower, daylight hours are shorter, and the plant is smaller or past peak growth time less water is used. Irrigation can then be spaced further apart.

Your local Soil Conservation Service office has information available to help design your irrigation system.

"The Conservation of Water begins with the Snow Survey"

Return if not delivered
UNITED STATES DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
SNOW SURVEY UNIT
P.O. BOX 17107
DENVER, COLORADO 80217
OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

POSTAGE AND FEES PAID
U.S. DEPARTMENT OF
AGRICULTURE
ACA-101



FIRST CLASS MAIL

U.S. DEPT. OF AGRICULTURE
NATL. AGRIC. LIBRARY
RECEIVED

APR 30 '81

PROCUREMENT SECTION
CURRENT SERIAL RECORDS

WATER SUPPLY CONDITIONS

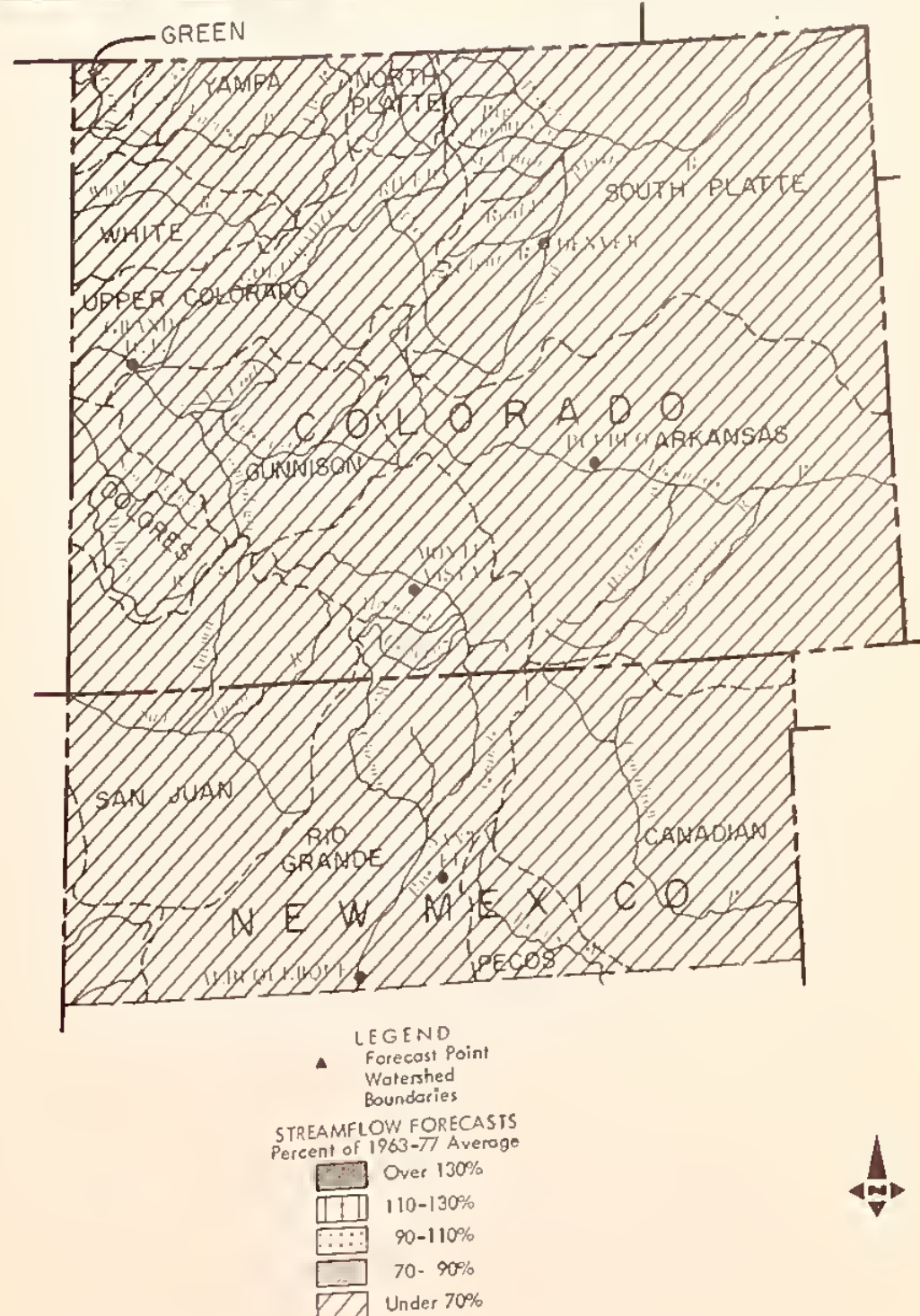
as of

April 1

MARCH WAS THE HEAVIEST PRECIPITATION MONTH OF THE WINTER. THE MOUNTAIN SNOWPACK IN BOTH COLORADO AND NEW MEXICO IMPROVED SIGNIFICANTLY AS A RESULT OF FREQUENT STORMS THROUGHOUT THE MONTH. THE IMPROVEMENT IN SNOWPACK CONDITIONS WAS NOT ENOUGH TO OFFSET THE LACK OF SNOW RECEIVED DURING THE PREVIOUS FIVE MONTHS HOWEVER. STREAMFLOW VOLUMES ARE EXPECTED TO GENERALLY RANGE BETWEEN ONE-HALF TO TWO-THIRDS OF NORMAL ON NEARLY ALL STREAMS IF NORMAL PRECIPITATION IS RECEIVED THE REMAINDER OF THE YEAR. ALL STREAMS ARE PREDICTED TO PRODUCE GREATER FLOWS THAN IN THE DROUGHT YEAR OF 1977. ALL FORECASTS ARE A JOINT EFFORT OF THE SOIL CONSERVATION SERVICE AND THE NATIONAL WEATHER SERVICE.

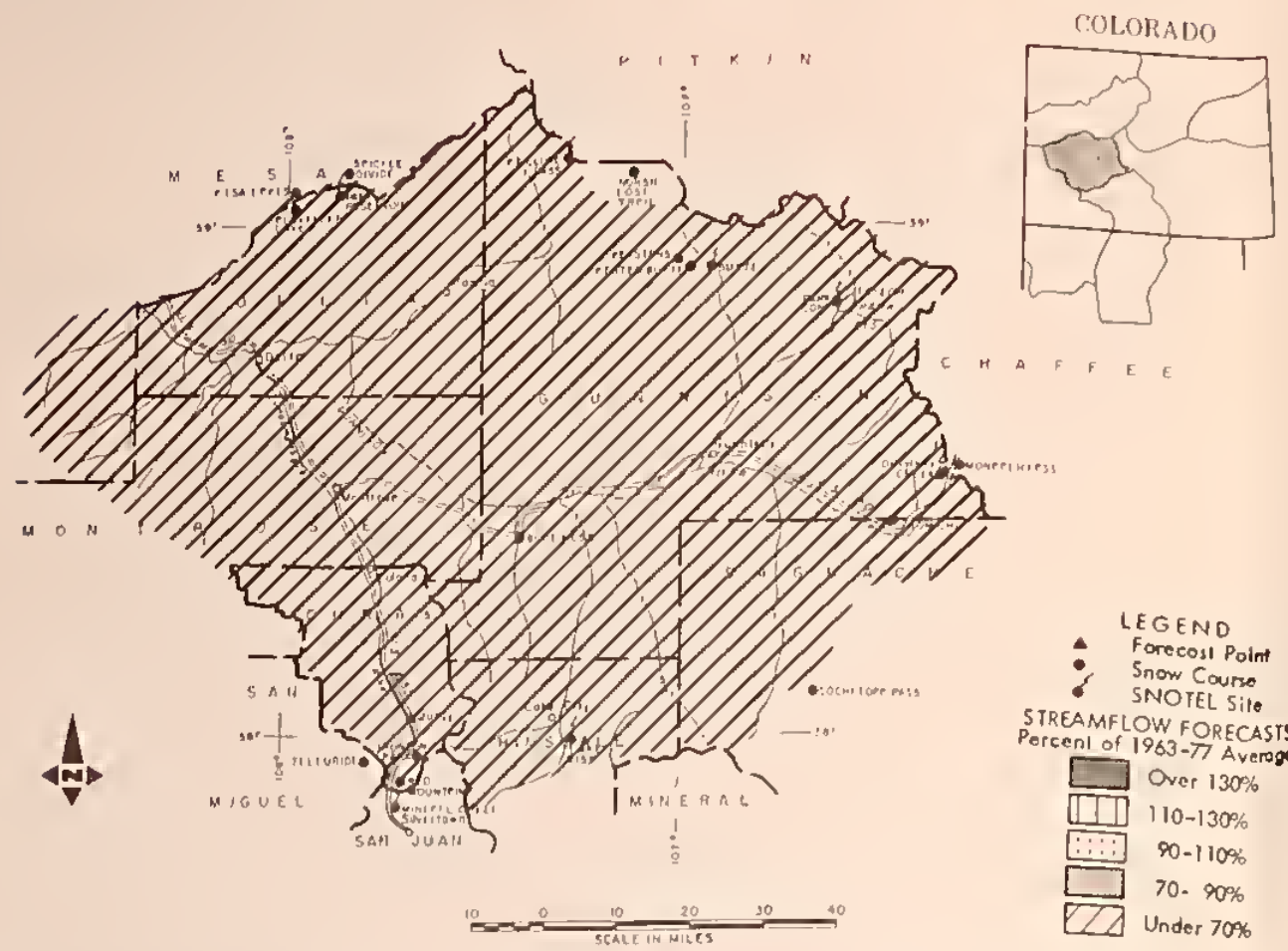
COLORADO -- THE STATEWIDE SNOWPACK HAS IMPROVED FROM 40% OF NORMAL LAST MONTH TO 60% CURRENTLY AS A RESULT OF ABNORMALLY HEAVY PRECIPITATION DURING MARCH WHICH AVERAGED 1 1-2 TIMES NORMAL. ALL STREAMFLOW FORECASTS IN THE STATE HAVE BEEN RAISED FROM LAST MONTH AS A RESULT. HOWEVER, THEY ARE STILL WELL BELOW NORMAL AND RANGE FROM 30% TO 70% OF AVERAGE. WITH 95% OF THE USUAL SNOW ACCUMULATION SEASON COMPLETED, MODERATE TO SEVERE WATER SHORTAGES ARE NOW ANTICIPATED. RESERVOIR STORAGE REMAINS 12% ABOVE NORMAL STATEWIDE.

NEW MEXICO -- MARCH WAS THE HEAVIEST PRECIPITATION PERIOD FOR THE WINTER WITH SOME STATIONS RECORDING AS MUCH AS TWICE NORMAL. SNOWPACK INCREASED DRAMATICALLY FROM 27% OF NORMAL LAST MONTH TO 70% OF NORMAL AS OF APRIL 1. STREAMFLOW FORECASTS HAVE ALL BEEN RAISED TO REFLECT THE PAST WET MONTH AND NOW RANGE FROM 25% OF NORMAL UP TO 75% OF NORMAL. RESERVOIR LEVELS ARE IN EXCELLENT SHAPE WITH CURRENT STORAGE AT 228% OF AVERAGE AND 113% OF A YEAR AGO. THE MOST DEFICIENT STREAMFLOWS WILL BE ON THE MAINSTEM OF THE RIO GRANDE WITH ONLY 25% OF NORMAL FORECAST AS INFLOW TO ELEPHANT BUTTE RESERVOIR.



The map on this page indicates the most probable water supply as of the date of this report. Estimates assume average conditions of snow fall, precipitation and other factors from this date to the end of the forecast period. As the season progresses accuracy of estimates improve. In addition to expected streamflow, reservoir storage, soil moisture in irrigated areas, and other factors are considered in estimating water supply. Estimates apply to irrigated areas along the main streams and may not indicate conditions on small tributaries.

GUNNISON RIVER WATERSHED IN COLORADO



YOUR WATER SUPPLY

PRECIPITATION FOR MARCH WAS 127% OF AVERAGE, WHICH BROUGHT THE SEASON TOTAL TO 72%. THE SNOWPACK HAS INCREASED FROM 47% ON THE GUNNISON RIVER WATERSHED TO 61% OF AVERAGE WHILE THE UNCOMPAGRE RIVER WATERSHED INCREASED FROM 47% TO 65% OF AVERAGE. STREAMFLOW FORECASTS HAVE INCREASED SLIGHTLY OVER LAST MONTH WITH SURFACE CREEK CHANGING FROM 59% TO 72% OF AVERAGE. RESERVOIR STORAGE IS ABOVE AVERAGE EXCEPT TAYLOR RESERVOIR WHICH IS AT 79 PERCENT OF AVERAGE. BLUE MESA RESERVOIR IS 126 PERCENT OF AVERAGE AND MORROW POINT IS 111 PERCENT. SOIL MOISTURE IS RATED AS FAIR TO POOR IN THE IRRIGATED AREAS.

STREAMFLOW FORECASTS (1000 Ac. Ft.) April - September

FORECAST POINT	Forecast	% of Average	1963-77 Average
Gunnison River inflow to Blue Mesa Reservoir (1)	430	57	754.0
Gunnison River near Grand Junction (2)	530	46	1150.0
North Fork of Gunnison (3)	175	67	262.0
Surface Creek at Gedarege	11	72	15.2
Uncompagre River at Colona	85	66	129.0

(1) Observed flow plus change in storage in Taylor Reservoir. (2) Observed flow plus change in storage in Blue Mesa, Morrow Point and Taylor Reservoirs. (3) Observed flow plus change in storage in Poudre Reservoir.

WATER SUPPLY OUTLOOK

STREAM or AREA	Flow Period	
	Spring Season	Long Season
Ohio Creek	Fair	Poor
Snake River	Fair	Poor
Taylor River	Fair	Poor
Tomichi Creek	Fair	Poor

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

Basin or Reservoir	Usable Capacity	Usable Storage		
		THIS YEAR	LAST YEAR	1963-77 AVERAGE
Blue Mesa	830	412	360	328
Morrow Point	121	115	115	104
Taylor	106	50	65	63

LIST OF COOPERATORS

The following organizations cooperate in snow surveys for the Colorado, Platte, Arkansas and Rio Grande watersheds. Many other organizations and individuals furnish valuable information for the snow survey reports. Their cooperation is gratefully acknowledged.

STATE

Colorado State Engineer
Colorado State Soil Conservation Board
New Mexico State Engineer
Colorado State University Experiment Station
Rocky Mountain Forest and Range Experiment Station
New Mexico Dept. of Game and Fish
University of Colorado, INSTAAR

FEDERAL

Department of Agriculture
Forest Service
Soil Conservation Service
Department of Interior
Bureau of Reclamation
Geological Survey
National Park Service
Department of Commerce
NOAA, National Weather Service
Defense Department
Army Engineer Corps
National Aeronautics and Space Administration
Goddard Space Flight Center

INVESTOR OWNED UTILITIES

Colorado Public Service Company
Public Service Company of New Mexico

MUNICIPALITIES

City of Denver
City of Greeley
City of Boulder
City of Fort Collins

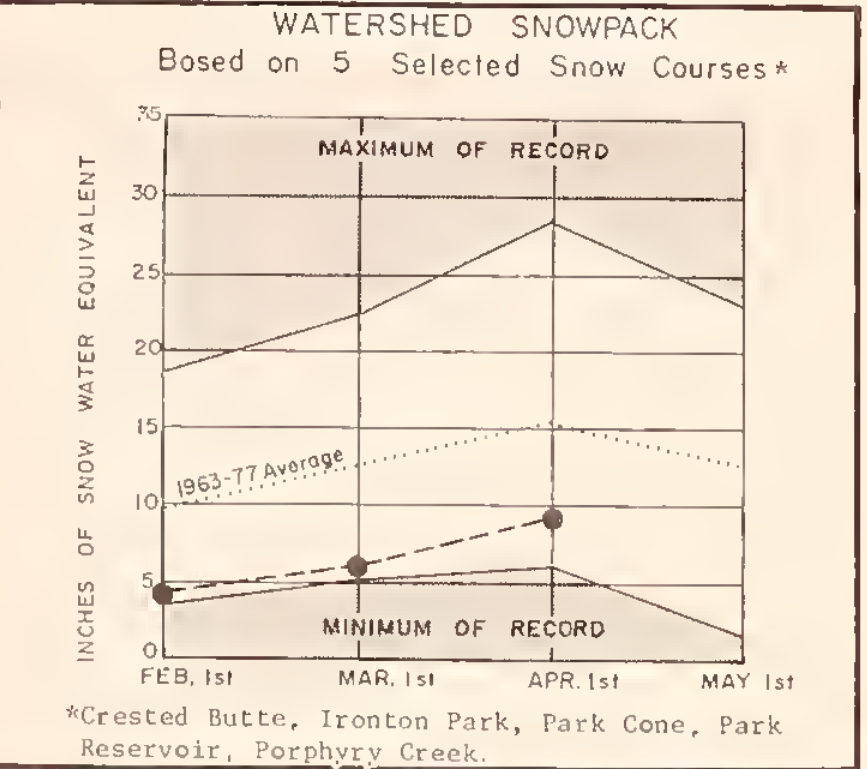
SUMMARY of SNOW MEASUREMENTS

RIVER BASIN AND SUB-WATERSHED	Number of Courses Surveyed	THIS YEAR'S SNOW WATER AS PERCENT OF	
		LAST YEAR	1963-77 Average
Gunnison	13	39	61
Surface Creek	3	45	72
Uncompagre	3	50	65

SNOW COURSE MEASUREMENTS

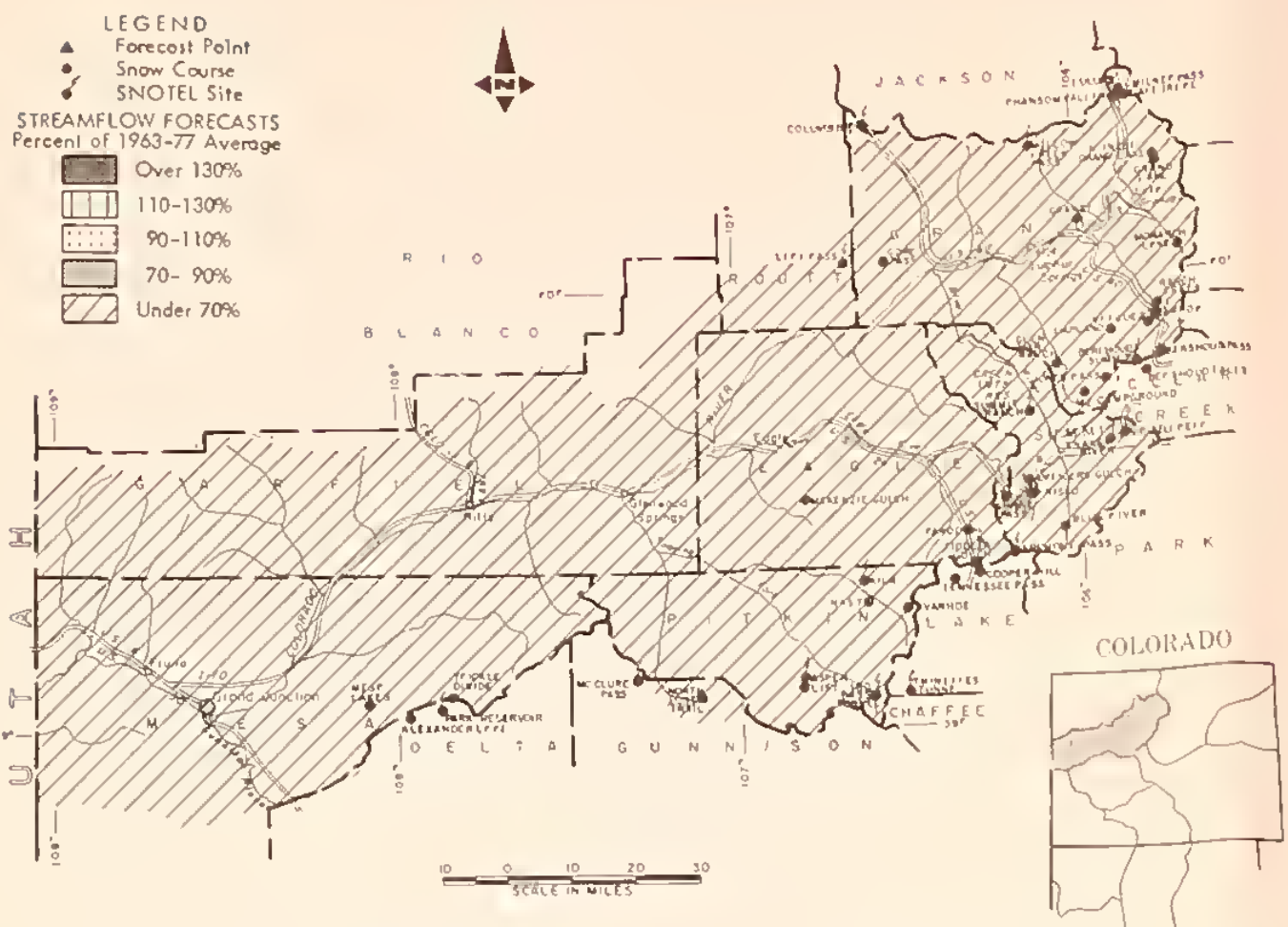
SNOW COURSE	DATE OF SURVEY	SNOW DEPTH (INCHES)	CURRENT INFORMATION		PAST RECORD	
			WATER CONTENT (INCHES)	LAST YEAR	WATER CONTENT (INCHES)	AVG. 1963-77
GUNNISON BASIN						
Gunnison River						
Alexander Lake	3/26	50	14.9	33.9	21.4	
Blue Mesa	3/31	23	5.6	10.8	7.1	
Butte	3/31	32	8.0	24.6	15.1	
Cochetopa Pass (B)	3/27	18	4.5	6.4	5.9	
Crested Butte	3/30	18	4.3	25.3	13.2	
Keystone	3/30	29	7.7	35.7	19.4	
Lake City	3/26	17	4.0	9.6	7.2	
Mesa Lakes (B)	3/26	42	12.4	24.4	16.5	
McClure Pass	3/31	38	10.7	23.2	15.4	
Park Cone	3/25	26	6.0	16.5	10.1	
Park Reservoir	3/26	58	16.4	38.6	22.5	
Porphyry Creek	3/30	36	10.2	21.1	16.2	
Slumgullion	3/26	33	9.0	16.1	--	
Tomichi	3/30	24	6.4	15.0	12.7	
Surface Creek						
Alexander Lake	3/26	50	14.9	33.9	21.4	
Mesa Lakes	3/26	42	12.4	24.4	16.5	
Park Reservoir	3/26	58	16.4	38.6	22.5	
Uncompagre River						
Idarado	3/30	35	9.4	19.0	--	
Ironton Park	3/30	31	8.6	17.0	13.3	
Red Mountain Pass	3/26	66	18.3	37.5	29.7	
Telluride (B)	3/25	20	5.8	11.4	7.1	

(B) - No survey.
(B) - On adjacent drainage.



*Crested Butte, Ironton Park, Park Cone, Park Reservoir, Porphyry Creek.

COLORADO RIVER WATERSHED IN COLORADO



YOUR WATER SUPPLY

PRECIPITATION FOR THE MONTH WAS 37 PERCENT ABOVE NORMAL. THIS IMPROVED THE SEASONAL READING TO 70 PERCENT OF AVERAGE. MOUNTAIN SNOWPACK READINGS TAKEN NEAR APRIL 1 INDICATE THE WATER CONTENT TO BE 54 PERCENT OF AVERAGE FOR THE COLORADO RIVER BASIN COMPARED TO 38 PERCENT LAST MONTH. HOWEVER, SOME SNOW COURSES NEAR THE CONTINENTAL DIVIDE REMAIN ONLY SLIGHTLY ABOVE MINIMUM OF RECORD. SNOWMELT RUNOFF PREDICTIONS RANGE FROM 35 PERCENT OF NORMAL ON THE WILLIAMS FORK TO 69 PERCENT OF AVERAGE ON THE ROARING FORK RIVER. RESERVOIR STORAGE IS 131 PERCENT OF AVERAGE BUT 12 PERCENT BELOW A YEAR AGO.

STREAMFLOW FORECASTS (1000 Ac. Ft.) April - September

FORECAST POINT	Forecast	% of Average	1963-77 Average
East Fork Troublesome Creek near Troublesome	5	29	17.0
Blue River inflow to Dillon Reservoir	95	57	167.0
Blue River inflow to Green Mountain Reservoir (1)	165	57	287.0
Colorado River near Cameo (2)	1400	60	2336.0
Colorado River near Dotsero (3)	750	53	1422.0
Colorado River inflow to Granby Reservoir (4)	140	64	218.0
Eagle River below Gypsum	150	50	697.0
Roaring Fork at Glenwood Springs (5)	480	69	59.0
Williams Fork near Parshall (6)	23	35	48.0
Willow Creek inflow to Willow Creek Reservoir	24	50	298.0

(1) Observed flow plus change in storage in Dillon Reservoir. (2) Observed flow plus the change in storage in Green Mountain Reservoir. (3) Observed flow plus change in storage in Lake Granby. (4) Observed flow plus change in storage in Lake Dillon. (5) Observed flow plus change in storage in Lake Granby. (6) Observed flow plus change in storage in Lake Dillon.

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

Basin or Reservoir	Usable Capacity	Usable Storage		
		THIS YEAR	LAST YEAR	1963-77 AVERAGE
Dillon	254	184	226	199
Granby	466	367	245	220
Green Mountain	139	70	58	56
Homestake	43	6	17	16
Ruedi	101	77	55	59
Vega	32	11	12	12
Williams Fork	97	70	44	33
Willow Creek	9	6	7	7

WATER SUPPLY OUTLOOK

STREAM or AREA	Flow Period	
	Spring Season	Long Season
Brush	Fair	Poor
Gypsum Creek	Fair	Poor

SUMMARY of SNOW MEASUREMENTS

RIVER BASIN AND SUB-WATERSHED	Number of Courses Surveyed	THIS YEAR'S SNOW WATER AS PERCENT OF	
		LAST YEAR	1963-77 Average
Blue River	8	38	52
Colorado	20	38	54
Plateau	3	45	73
Roaring Fork	8	47	61
Williams Fork	3	47	63
Willow	2	42	55

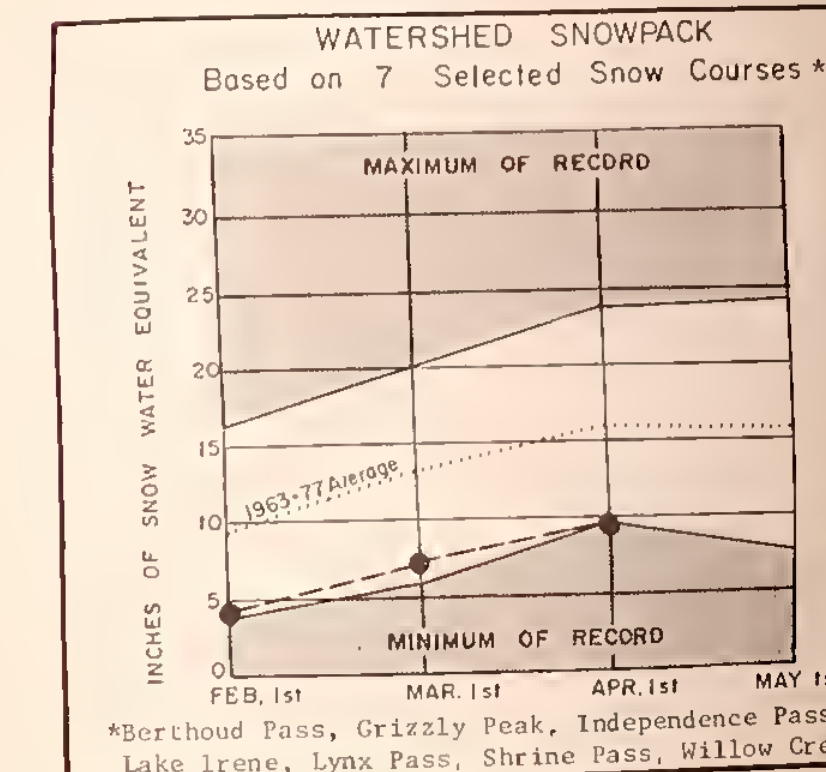
SNOW COURSE MEASUREMENTS

SNOW COURSE	DATE OF SURVEY	SNOW DEPTH (INCHES)	CURRENT INFORMATION		PAST RECORD	
			WATER CONTENT (INCHES)	LAST YEAR	WATER CONTENT (INCHES)	AVG. 1963-77
COLORADO BASIN						
Blue River						
Blue River	3/31	13	3.2	12.3	8.0	
Fremont Pass	3/27	37	8.8	21.4	15.5	
Grizzly Peak	3/31	40	10.9	20.4	17.8	
Hoosier Pass	3/31	23	6.1	17.8	12.0	
Officers Gulch	3/30	9	2.1	9.9	5.7	
Shrine Pass	3/27	40	10.5	21.3	17.6	
Snake River	3/31	12	2.8	10.9	7.6	
Summit Ranch	3/30	14	2.8	11.6	7.2	
Colorado River						
Arrow	3/27	28	6.8	19.0	13.4	
Berthoud Pass	3/31	41	10.0	22.2	15.9	
Berthoud Summit	3/27	40	10.3	22.8	18.1	
Cooper Hill	3/30	31	6.2	16.9	10.8	
Copper Mountain	3/30	32	7.8	16.2	--	
Glenmar Ranch	3/30	24	6.1	11.2	8.0	
Gore Pass	3/30	26	5.7	13.3	10.1	
Grand Lake	3/27	19	4.3	14.4	8.3	
Lake Irene	3/27	38	10.2	29.3	19.7	
Lapland	3/27	15	4.1	14.4	9.5	
Lulu	3/29	40	9.8	28.5	18.4	
Lynx Pass	3/30	34	7.3	14.1	12.0	
McKenzie Gulch	3/27	14	3.6	8.2	5.0	
Middle Fork	3/30	23	5.8	13.6	9.7	
Milner	3/27	23	6.3	18.5	12.6	
North Inlet	3/26	15	3.5	13.6	8.3	
Pando	3/27	15	4.0	10.7	9.7	
Phantom Valley	3/27	18	5.3	18.2	10.0	
Ranch Creek	3/27	20	4.4	13.4	9.4	
Tennessee Pass (B)	3/27	17	3.8	13.3	10.0	
Vail Mountain	3/27	53	13.6	28.5	--	
Vasquez	3/30	39	8.7	19.1	12.6	
Plateau Creek						
Mesa Lakes	3/26	42	12.4	24.4	16.5	
Park Reservoir	3/26	58	16.4	38.6	22.5	
Trickle Divide	3/26	59	17.5	39.8	24.3	
Roaring Fork						
Aspen	3/26	35	8.7	18.4	17.3	
Independence Pass	3/26	40	9.9	20.5	15.9	
Ivanhoe	3/25	31	6.8	13.8	12.7	
Kila	3/26	46	12.4	23.0	17.4	
Lift	3/31	38	10.7	23.2	15.4	
McClure Pass	3/25	12	2.8	9.4	6.1	
Nast	3/26	29	8.6	22.7	14.4	
North Lost Trail						
Williams Fork River						
Glenmar Ranch	3/30	24	6.1	11.2	8.0	
Jones Pass	3/30	37	9.0	20.1	15.1	
Middle Fork	3/30	23	5.8	13.6	9.7	
Ute Pass	3/26	28	6.7	17.5	--	
Willow Creek						
Granby	3/31	14	3.2	9.6	7.2	
Willow Creek Pass	3/26	28	7.5	16.0	12.2	

(B) - No survey.
(B) - On adjacent drainage.

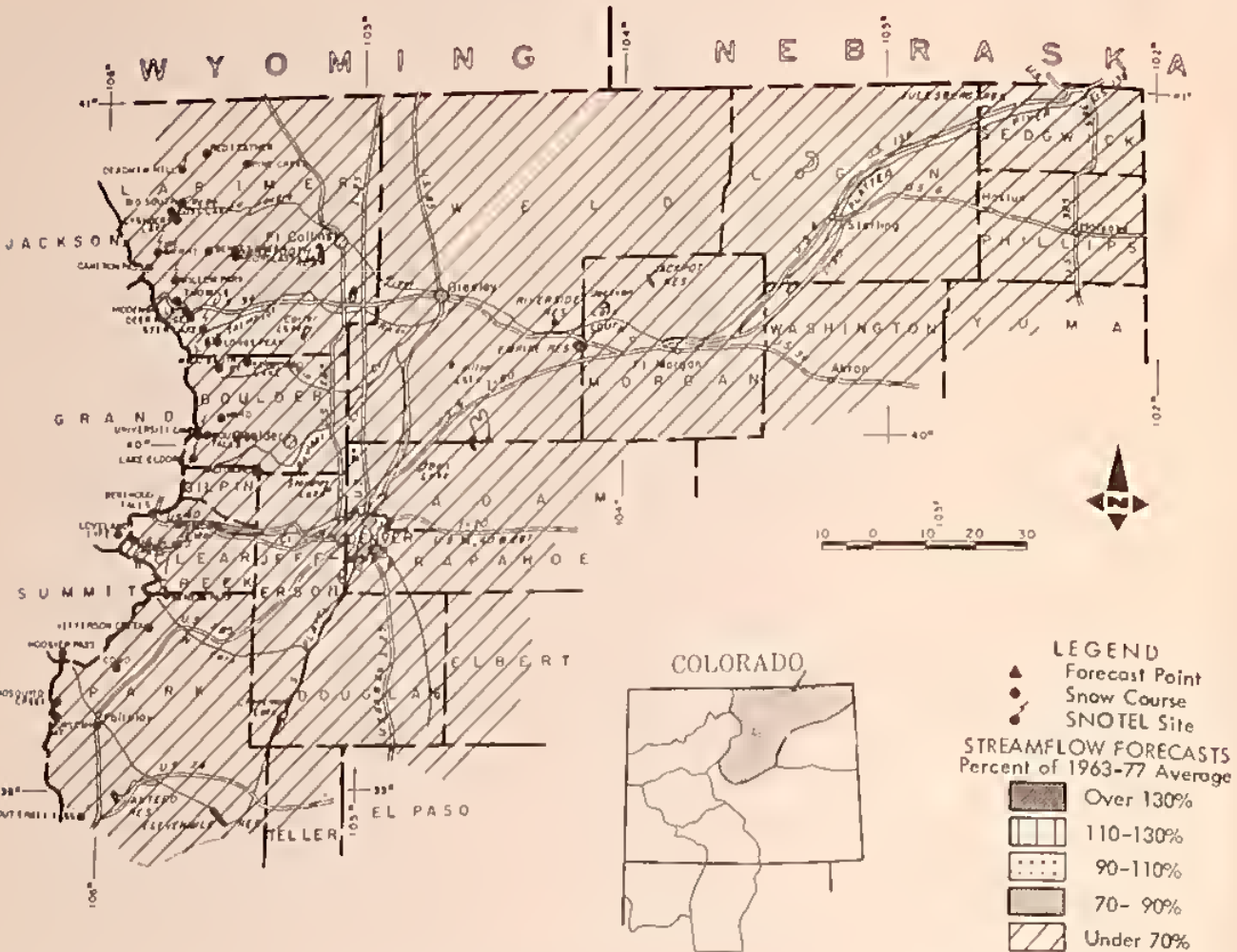


Springtime comes to the Crystal River.



*Berthoud Pass, Grizzly Peak, Independence Pass, Lake Irene, Lynx Pass, Shrine Pass, Willow Creek.

SOUTH PLATTE RIVER WATERSHED IN COLORADO



YOUR WATER SUPPLY
 SNOWPACK FOR THE BASIN HAS INCREASED FOR THE MONTH THROUGH A SERIES OF STORMS. THE BIG THOMPSON WATERSHED HAS INCREASED FROM 31% OF AVERAGE TO 48% FOR APRIL 1. CACHE LA POUDE AND THE SOUTH PLATTE WATERSHEDS INCREASED ABOUT 20% OVER LAST MONTH'S READINGS. PRECIPITATION WAS 139% OF AVERAGE. THIS BROUGHT THE SEASONAL AVERAGE TO 71%. STREAMFLOW FORECASTS HAVE INCREASED BECAUSE OF ABOVE AVERAGE PRECIPITATION FOR THE MONTH. THEY NOW RANGE FROM 49% ON THE SOUTH PLATTE RIVER TO 66% ON THE CACHE LA POUDE RIVER. RESERVOIR STORAGE IS NEAR TO SLIGHTLY ABOVE AVERAGE FOR MOST RESERVOIRS AFFECTING THE IRRIGATED AREAS.

STREAMFLOW FORECASTS (1000 Ac. Ft.) April - September

FORECAST POINT	Forecast	% of Average	1963-77 Average
Bear Creek at Morrison	16	58	28.0
Big Thompson River at Drake (1)	61	60	102.0
Boulder Creek at Otodell	24	53	45.1
Cache La Poudre River at Canyon Mouth (2)	160	66	243.0
Clear Creek at Golden (3)	60	50	120.0
St. Vrain Creek at Lyons	40	56	71.6
South Platte River at South Platte	95	49	193.0

(1) Observed flow plus hydropower plants. (2) Observed flow minus trans-basin diversions plus municipal and irrigation diversions. (3) Observed flow minus diversion by Berthoud Ditch, plus City of Golden and Church Ditch diversions.

WATER SUPPLY OUTLOOK Expressed as "Poor, Fair, Average, Excellent" with Respect to Usual Supply

STREAM or AREA	Flow Period	
	Spring Season	Leaf Season
Coal Creek	Poor	Poor
North Fork of South Platte	Poor	Poor
North Fork of Cache La Poudre	Fair	Poor
Ralston Creek	Poor	Poor
Rock Creek	Poor	Poor
South Platte from Greeley to Fort Morgan	Fair	Poor
South Platte from Fort Morgan to Sterling	Fair	Poor
South Platte below Sterling	Fair	Poor

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

Basin or Stream and Reservoir	Usable Capacity	Usable Storage		
		Feet	Last 1963	1963-77 Average
Antero	16	16	16	14
Barr Lake	32	30	26	25
Black Hollow	8	3	5	4
Boyd Lake	44	36	42	37
Cache La Poudre	10	8	10	8
Carter Lake	109	93	106	99
Chambers Lake	9	3	6	3
Cheesman	79	78	71	49
Cobb Lake	34	12	20	14
Eleven Mile	98	98	98	87
Empire	38	33	33	33
Fossil Creek	12	6	6	9
Gross	43	21	21	26
Halligan	6	6	6	5
Horseshoe Mountain	144	121	127	109
Jackson	35	33	32	34
Julesburg	28	23	23	22
Lake Loveland	14	10	12	10
Lone Tree	9	3	8	6
Mariano	5	5	5	5
Marshall	10	5	8	5
Marston	17	15	16	15
Nilton	24	18	17	15
Point of Rocks	70	72	70	66
Prewitt	33	27	27	23
Riverside	58	63	40	59
Standley	42	34	41	25
Terry	8	5	5	5
Union	13	12	13	10
Windsor	19	14	14	12



SUMMARY of SNOW MEASUREMENTS

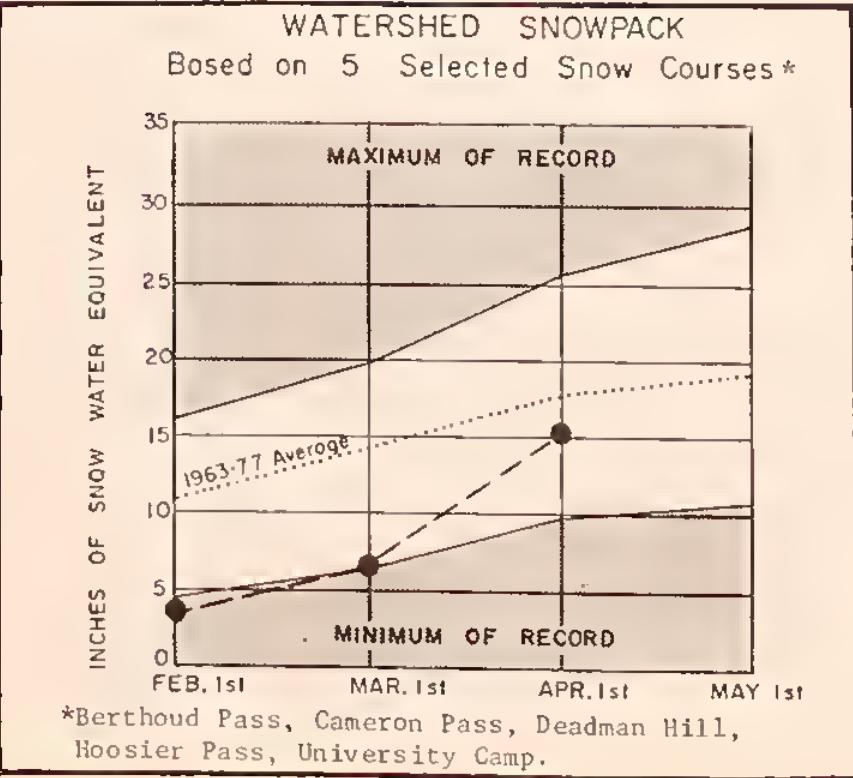
(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		LAST YEAR	1963-77 Average
Big Thompson	5	33	48
Boulder	3	36	46
Cache La Poudre	9	45	60
Clear Creek	5	41	52
Saint Vrain	3	27	50
South Platte	7	35	50

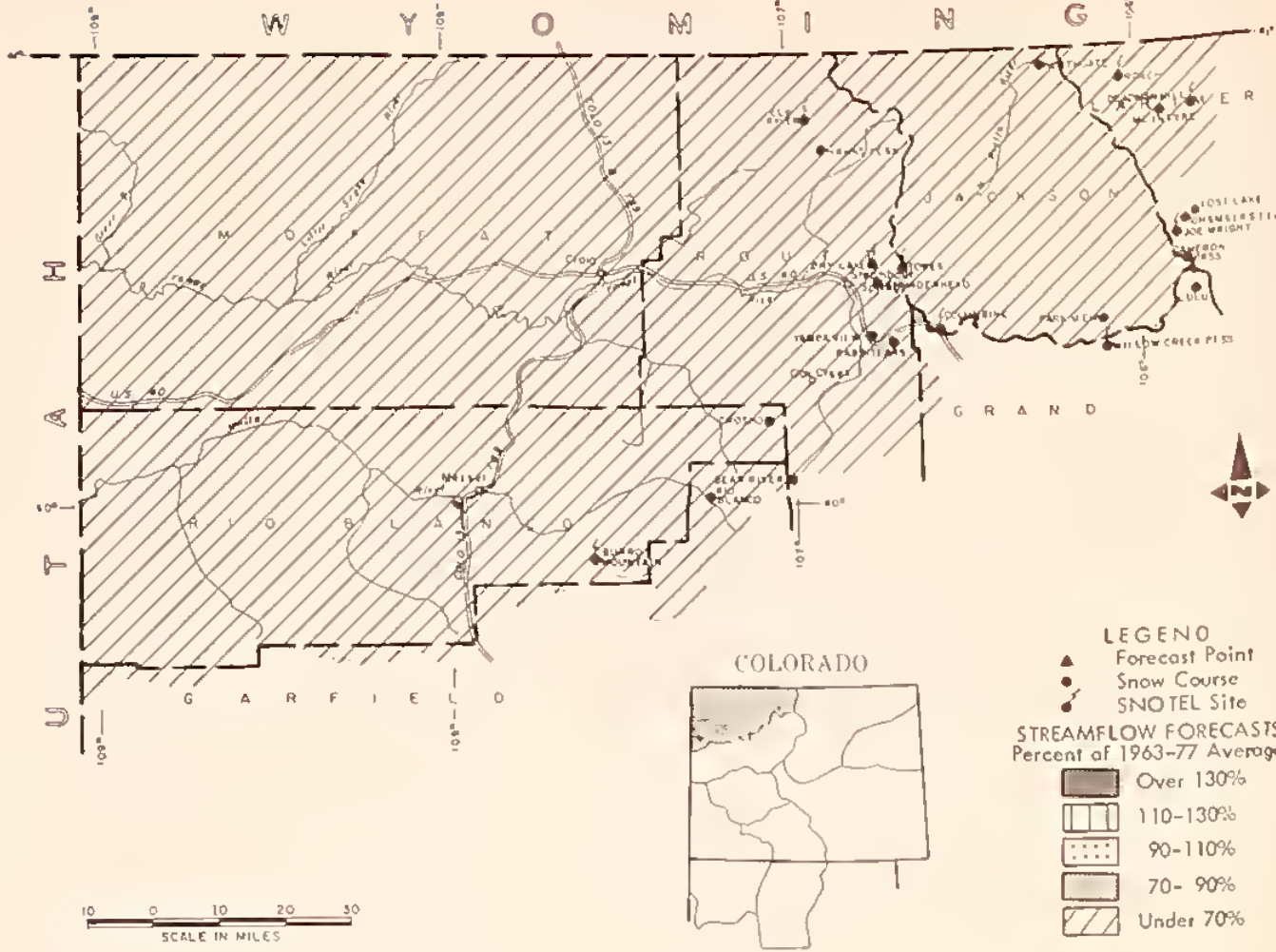
SNOW COURSE MEASUREMENTS

SNOW COURSE	DATE OF SURVEY	CURRENT INFORMATION		PAST RECORD	
		SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
				LAST YEAR	1963-77 Average
SOUTH PLATTE BASIN					
<u>Boulder Creek</u>					
Baltimore	3/27	12	2.6	8.6	6.6
Boulder Falls	4/01	25	6.0	15.7	12.8
Lake Eldora	3/26	21	5.8	15.5	--
University Camp	4/01	32	8.0	22.2	17.0
Mivot	4/01	25	6.5	18.9	--
<u>Big Thompson River</u>					
Bear Lake	3/30	38	8.5	20.9	--
Deer Ridge	3/29	7	2.0	8.1	4.3
Hidden Valley	3/29	20	4.6	13.7	9.3
Lake Irene (B)	3/27	38	10.2	29.3	19.7
Long's Peak	3/25	22	5.1	15.0	10.4
Two Mile	3/29	29	5.7	18.5	13.7
Willow Park	3/31	39	8.6	27.5	--
<u>Cache La Poudre</u>					
Bennett Creek	3/30	20	4.4	11.8	6.6
Big South	3/30	8	1.2	5.2	1.3
Cameron Pass	3/30	55	15.8	28.5	28.2
Chambers Lake	3/30	8	1.8	13.4	9.0
Deadman Hill	3/31	46	11.8	19.3	15.5
Hourglass Lake	3/30	22	4.4	10.8	6.7
Joe Wright	3/30	64	15.8	27.7	24.4
Lost Lake	3/30	22	5.3	15.3	11.1
Red Feather	3/31	18	4.8	12.5	6.6
<u>Clear Creek</u>					
Baltimore (B)	3/27	12	2.6	8.6	6.6
Berthoud Falls	3/27	23	5.6	18.4	13.2
Empire	3/27	16	3.4	9.6	7.5
Grizzly Peak (B)	3/31	40	10.9	20.4	17.8
Loveland Pass	3/31	34	9.0	20.0	15.2
<u>St. Vrain River</u>					
Copeland Lake	3/27	7	2.0	10.1	4.0
Ward	3/26	12	3.3	9.4	5.7
Wild Basin	3/27	19	4.5	17.2	9.9
<u>South Platte River</u>					
Bison Reservoir	3/27	6	2.1	7.6	--
Como	3/27	10	2.9	7.9	6.7
Geneva Park	3/26	7	1.4	5.1	3.7
Horseshoe Mountain	3/30	20	4.7	14.3	10.1
Hoosier Pass	3/31	23	6.1	17.6	12.0
Jefferson Creek	3/30	18	4.8	11.2	8.5
Mosquito	3/30	11	2.6	13.7	8.6
Trout Creek Pass	3/27	13	4.2	6.7	4.2
Antero	3/27	8	2.2	4.7	2.3

(A)-No survey. (B)-On adjacent drainage.



YAMPA, WHITE AND NORTH PLATTE RIVER WATERSHEDS IN COLORADO



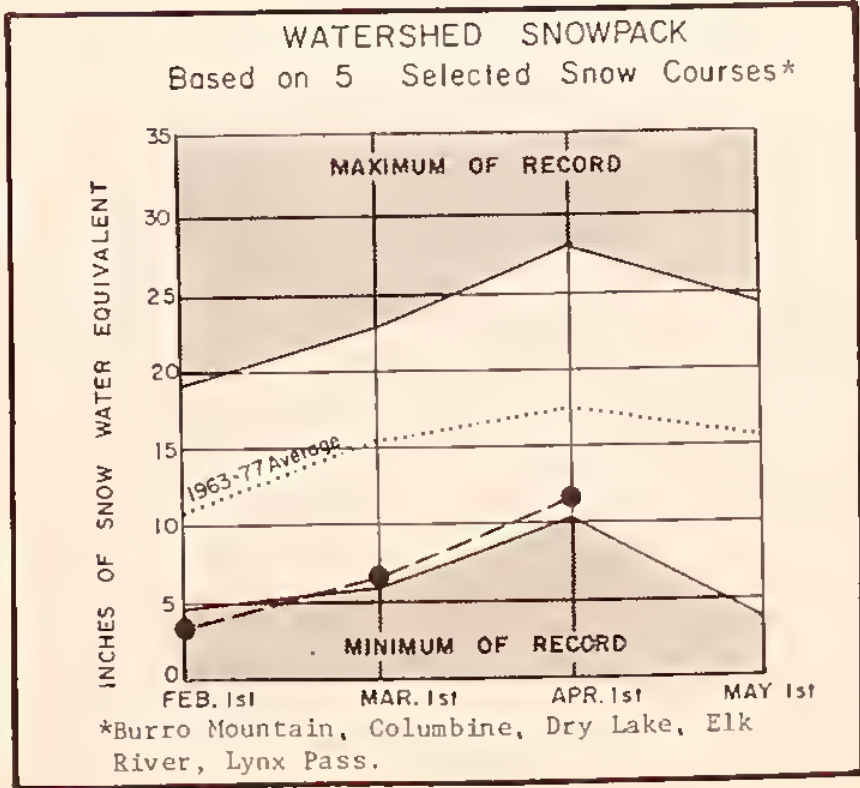
YOUR WATER SUPPLY
 SNOWPACK INCREASED FROM 40 PERCENT TO 54 PERCENT OF AVERAGE ON THE NORTH PLATTE WATERSHED AND FROM 45 PERCENT TO 64 PERCENT IN THE YAMPA RIVER AREA. STREAMFLOW FORECASTS RANGE FROM 37 PERCENT OF AVERAGE ON THE NORTH PLATTE RIVER TO 63 PERCENT ON THE ELK AND WHITE RIVERS. PRECIPITATION OVER THE BASIN WAS 169 PERCENT OF NORMAL FOR THE MONTH. THIS BROUGHT THE SEASONAL AVERAGE TO 72 PERCENT COMPARED TO 52 PERCENT LAST MONTH. SOIL MOISTURE REMAINS FAIR TO POOR THROUGHOUT THE AREA.

STREAMFLOW FORECASTS (1000 Ac. Ft.) April - September

FORECAST POINT	Forecast	% of Average	1963-77 Average
Elk River at Clark	125	63	198.0
Laramie River near Woods	60	48	125.0
Little Snake River at Lily	210	60	349.0
North Platte River at Northgate	88	37	238.0
White River near Meeker	180	63	287.0
Yampa River near Maybell	500	55	905.0
Yampa River at Steamboat Springs	170	62	273.0

WATER SUPPLY OUTLOOK Expressed as "Poor, Fair, Average, Excellent" with Respect to Usual Supply

STREAM or AREA	Flow Period	
	Spring Season	Leaf Season
Canadian River	Fair	Poor
Hunt Creek	Fair	Poor
Illinois River	Fair	Poor
Michigan River	Fair	Poor
Oak Creek	Poor	Poor
Trout Creek	Poor	Poor



SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		LAST YEAR	1963-77 Average
Elk	2	46	64
Laramie	3	45	58
North Platte	5	46	54
White	2	48	60
Yampa	8	51	64

SNOW COURSE MEASUREMENTS

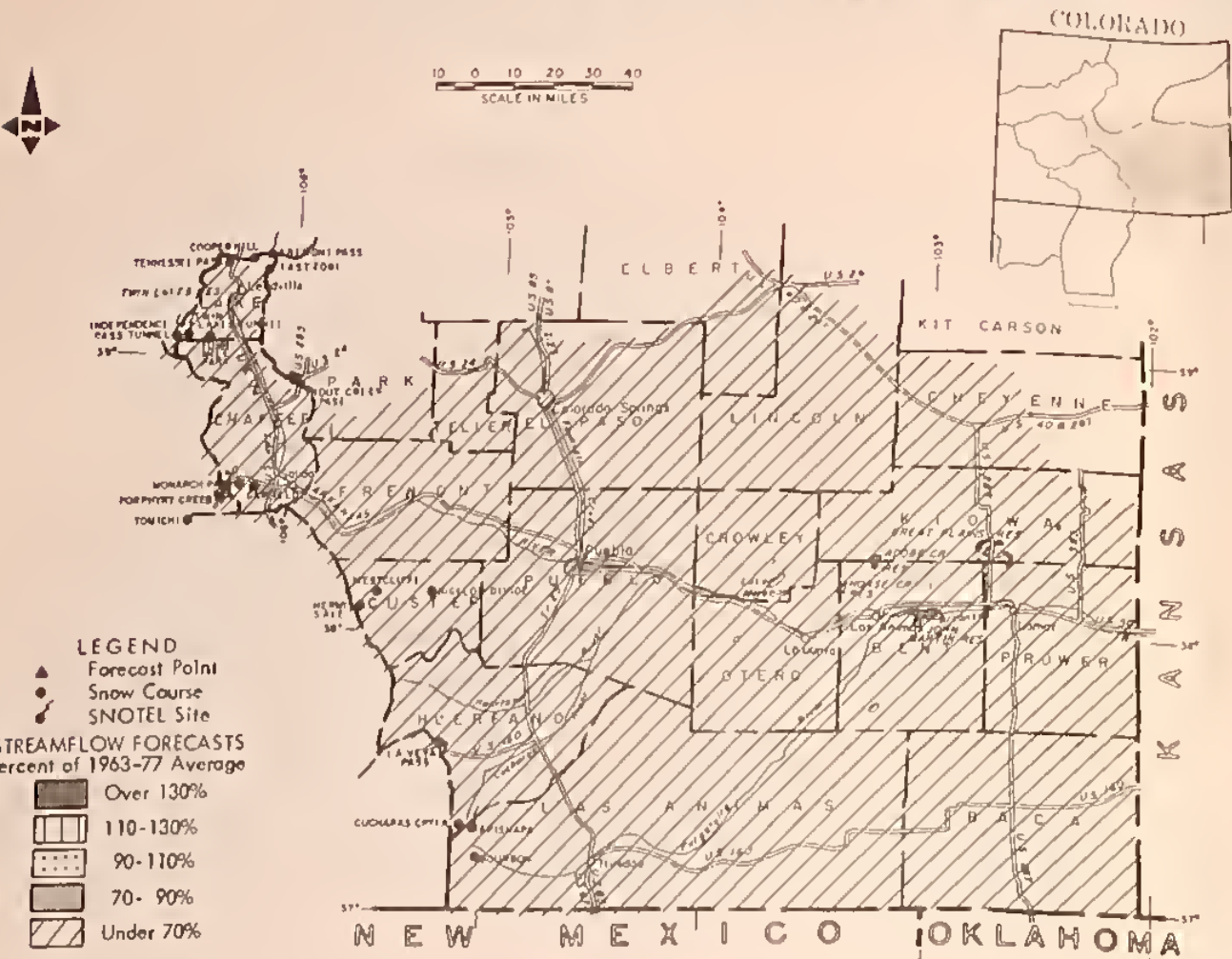
SNOW COURSE	DATE OF SURVEY	CURRENT INFORMATION		PAST RECORD	
		SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
				LAST YEAR	1963-77 Average
NORTH PLATTE BASIN					
<u>Laramie River</u>					
Deadman Hill	3/31	46	11.8	19.3	15.5
McIntyre	3/27	19	4.2	14.1	10.6
Ronch	3/26	42	9.8	24.0	18.2
<u>North Platte River</u>					
Cameron Pass	3/30	55	15.8	28.5	28.2
Columbine Lodge	3/31	39	11.0	26.4	23.2
Northgate	3/27	9	2.4	9.9	6.2
Park View	3/26	26	5.8	10.8	9.1
Willow Cr. Pass (B)	3/26	28	7.5	16.0	12.2
YAMPA BASIN					
<u>Elk River</u>					
Elk River	3/31	46	11.2	22.8	17.3
Itahu's Peak	3/31	33	8.5	20.2	13.6
<u>White River</u>					
Burro Mountain	3/26	43	11.3	21.0	16.6
Rio Blanco	3/27	29	7.6	18.2	14.7
<u>Yampa River</u>					
Bear River	3/27	27	6.2	14.6	10.8
Columbine (B)	3/31	39	11.0	26.4	23.2
Crosby	3/30	31	8.1	19.9	13.4
Dry Lake	3/31	49	14.8	27.0	18.6
Lynx Pass (B)	3/30	34	7.3	14.1	12.6
Rabbit Bars	3/31	64	17.4	29.4	25.1
Tower	3/31	110	30.1	56.5	46.9
Yampa View	3/31	40	10.9	20.3	14.7

(B)-No survey. (B)-on adjacent drainage.



Big game animals have prospered in the mild winter this year. (Photo courtesy of Colorado Division of Wildlife.)

ARKANSAS RIVER WATERSHED IN COLORADO



YOUR WATER SUPPLY

ABOVE AVERAGE PRECIPITATION FELL DURING MARCH. THIS BROUGHT THE BASIN SEASONAL TOTAL TO 64% OF AVERAGE. SNOWPACK IS NOW AT 62% OF AVERAGE COMPARED TO 44% A MONTH AGO. STREAMFLOW FORECASTS HAVE INCREASED BUT ARE STILL BELOW AVERAGE. THEY RANGE FROM 38% FOR THE ARKANSAS RIVER ABOVE PUEBLO TO 67% ON THE HUERFANO RIVER. RESERVOIR STORAGE IS 98% OF LAST YEAR AT THE SAME TIME AND 139% OF AVERAGE. SNOW COURSE READINGS IN THE HEADWATER OF THE ARKANSAS RIVER ARE ONLY SLIGHTLY ABOVE MINIMUMS OF RECORD. SOIL MOISTURE CONDITIONS IN THE AREA ARE FAIR TO POOR.

STREAMFLOW FORECASTS (1000 Ac. Ft.) April - September

FORECAST POINT	Forecast	% of Average	1963-77 Average
Arkansas River above Pueblo (1)	100	38	260.0
Arkansas River at Salida (2)	160	56	288.0
Cucharas River near La Veta	6	66	9.1
Grape Creek near Westcliffe	10	62	16.0
Huerfano River near Redwing	9	67	13.4
Purgatoire River at Trinidad (3)	20	61	32.8

(1) Plus change in storage in Pueblo Reservoir. (2) Observed flow plus change in storage in Clear Creek, Twin Lakes and Tropicana Reservoirs. (3) Change in storage in Trinidad Reservoir.

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

Basin or Stream and/or Reservoir	Usable Capacity	This Year	Last Year	1963-77 Average
Adobe	60	47	3	12
Clear Creek	11	6	8	7
Great Plains	150	13	0	43
Holbrook Lake	7	6	6	—
Horse Creek	27	20	22	5
John Martin	621	74	38	59
Lake Henry	8	8	6	—
Meredith	42	2	0	10
Pueblo	351	63	63	—
Trinidad	158	43	22	—
Turquoise	121	63	72	30
Twin Lakes	68	42	33	26

WATER SUPPLY OUTLOOK

STREAM or AREA	Flow Period	Spring Season	Late Season
Apishapa River	Fair	Poor	Poor
Poudre River	Poor	Poor	Poor
Hardscrabble Creek	Poor	Poor	Poor
Monument Creek	Poor	Poor	Poor



Predicted streamflows will mean excellent fishing as streams drop more rapidly than normal. (Photo courtesy of Colorado Division of Wildlife.)

SUMMARY of SNOW MEASUREMENTS

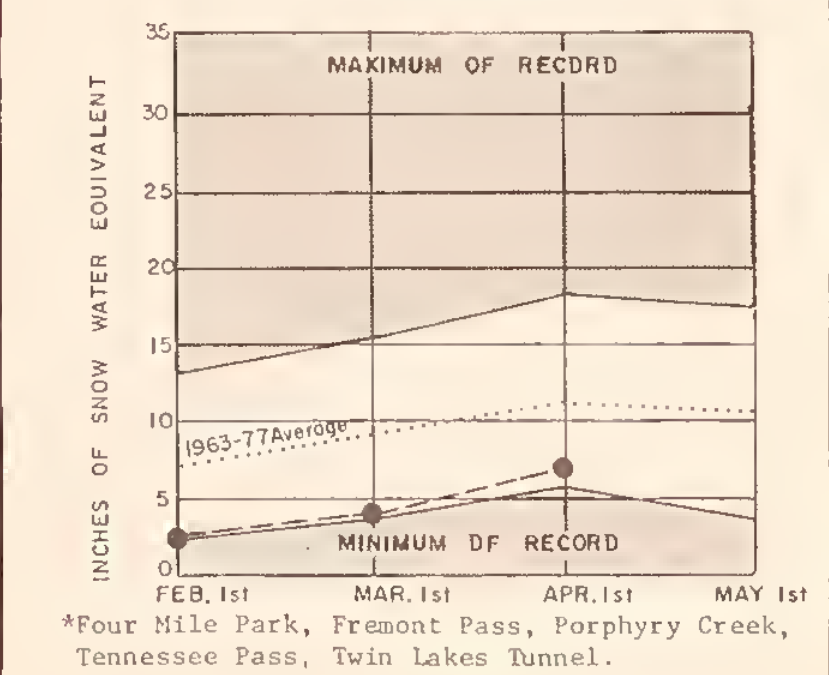
RIVER BASIN and/or SUBWATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF 1963-77 AVERAGE	
		Last Year	1963-77 Average
Arkansas	11	44	60
Cucharas	2	45	64
Purgatoire	1	55	84

SNOW COURSE MEASUREMENTS

SNOW COURSE	CURRENT INFORMATION			PAST RECORD	
	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	LAST YEAR	AVG. 63-77
ARKANSAS BASIN					
<u>Arkansas River</u>					
Bigelow Divide	3/30	30	7.4	8.9	7.2
Brumley	3/27	27	5.6	14.9	--
Cooper Hill (B)	3/30	31	6.2	14.9	10.8
East Fork	3/27	20	4.1	11.9	9.5
Four Mile Park	3/27	14	3.2	10.0	5.0
Fremont Pass	3/27	37	8.8	21.4	15.5
Garfield	3/27	26	7.0	19.8	12.8
Hermit Lake	3/30	13	4.7	10.7	8.9
Monarch Pass	3/30	28	7.8	21.3	16.0
South Colony	3/31	51	15.4	23.6	--
Tennessee Pass	3/27	16	3.8	13.3	10.0
Twin Lakes Tunnel	3/26	32	8.6	13.0	9.8
Westcliffe	3/30	15	5.6	8.4	6.9
<u>Cucharas River</u>					
Apishapa	3/31	12	4.5	10.5	7.7
Cucharas Creek	3/31	21	6.4	11.1	--
La Veta Pass (B)	3/31	16	5.6	12.0	8.1
Huerfano	3/26	12	3.8		
<u>Purgatoire River</u>					
Bourbon	3/30	22	5.8	10.6	6.9
Whiskey Creek	3/30	21	6.4	12.2	--

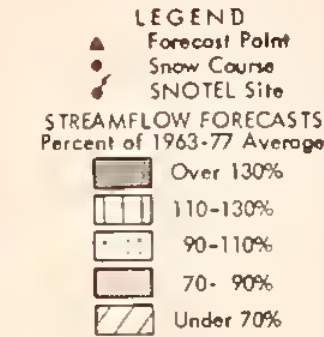
75%-No survey.
(B)-On adjacent drainage.

WATERSHED SNOWPACK



*Four Mile Park, Fremont Pass, Porphyry Creek, Tennessee Pass, Twin Lakes Tunnel.

RIO GRANDE WATERSHED IN COLORADO AND NEW MEXICO



RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

Basin or Stream and/or RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	1963-77 Average
COLORADO				
Continental	27	8	7	5
Platoro	60	20	31	9
Rio Grande	51	23	41	18
Sanchez	103	18	22	10
Santa Maria	45	11	12	7
Terrace	18	0	7	6
NEW MEXICO				
Avalon	5	4	2	2
Caballo	344	87	60	48
Conchas	273	37	75	133
El Vado	195	108	124	35
Elephant Butte	2195	217	970	375
McMillan	34	22	9	20
Sumner	11	32	90	47

WATER SUPPLY OUTLOOK

STREAM or AREA	Flow Period	Spring Season	Late Season
COLORADO			
Sangre de Cristo Cr	Fair	Poor	Poor
Trinchera Creek	Fair	Poor	Poor
NEW MEXICO			
Embudo Creek	Fair	Poor	Poor
Mora River	Fair	Poor	Poor
Nambe Creek	Fair	Poor	Poor
Rio Ojo Caliente	Fair	Poor	Poor
Santa Fe Creek	Poor	Poor	Poor

YOUR WATER SUPPLY

PRECIPITATION DURING THE MONTH WAS 156 PERCENT OF NORMAL IN THE RIO GRANDE BASIN IN COLORADO AND 160 PERCENT OF NORMAL IN NEW MEXICO. THIS BROUGHT THE SEASON AVERAGE FOR COLORADO TO 63 PERCENT OF AVERAGE AND NEW MEXICO TO 77 PERCENT. THE SNOWPACK IN COLORADO IS NOW ABOUT 66 PERCENT OF AVERAGE AND NEW MEXICO IS AT 70 PERCENT. STREAMFLOW FORECASTS HAVE INCREASED SLIGHTLY FOR THE RIO GRANDE AND RANGE FROM 25 PERCENT OF AVERAGE FOR THE RIO GRANDE AT SAN MARCIAL TO 75 PERCENT AT CULEBRA CREEK. RESERVOIR STORAGE IN COLORADO IS 145 PERCENT OF AVERAGE AND IN NEW MEXICO 228 PERCENT. RESERVOIR STORAGE WILL HELP TO ALLEVIATE SOME OF THE EFFECTS OF THE WINTER DROUGHT. SOIL MOISTURE CONDITIONS RANGE FROM GOOD TO POOR OVER THE ENTIRE AREA.

STREAMFLOW FORECASTS (1000 Ac. Ft.)

FORECAST POINT	Forecast	% of Average	1963-77 Average
COLORADO (April-September)			
Alamosa Creek above Terrace Reservoir	42	66	63.6
Conejos River near Nogote (1)	125	68	183.0
Culebra Creek at San Luis (2)	12	78	15.3
La Jara Creek near Capulin (March-July)	45	59	7.6
Los Pinos River near Ortiz	38	62	61.3
Rio Grande at Thirty Mile Bridge (3)	80	67	119.0
Rio Grande near Del Norte (3)	290	63	462.0
Saguache Creek near Saguache	20	66	30.1
San Antonio River at Ortiz	8	66	12.2
South Fork of Rio Grande at South Fork	80	67	119.0
Trinchera Water Supply (April-July) (6)	14	64	21.9
NEW MEXICO (March-July)			
Costilla Creek at Costilla (4)	11	71	15.4
Jemez River near Jemez	25	75	33.3
Pecos River at Pecos	16	42	38.1
Red River at Mouth	19	70	27.2
Rio Chama at El Vado	85	48	177.0
Rio Grande at Otowi (5)	215	43	497.0
Rio Grande at San Marcial (5)	85	25	335.0
Rio Hondo near Valdez	9	70	12.8
Rio Pueblo de Taos below Los Cordovans	9	47	11.0
Santa Cruz River at Cimdelly	4	34	11.6

(1) Observed flow plus change in storage in Pueblo Reservoir. (2) Observed flow plus change in storage in Conejos Reservoir. (3) Observed flow plus change in storage in La Jara Reservoir. (4) Observed flow plus change in storage in Jemez Reservoir. (5) Observed flow plus change in storage in El Vado Reservoir. (6) Sum of Trinchera Creek near Ft. Garland, Rio Grande near Sangre de Cristo near Ft. Garland and Indian Creek diversion.

SUMMARY of SNOW MEASUREMENTS

RIVER BASIN and/or SUBWATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	1963-77 AVERAGE
NEW MEXICO			
Pecos	1	2	5
Red River	2	41	68
Rio Chama	3	32	74
Rio Grande, NM	15	46	67
Rio Hondo	1	46	

SNOW COURSE MEASUREMENTS

SNOW COURSE	DATE OF SURVEY	SNOW DEPTH (INCHES)	CURRENT INFORMATION		PAST RECORD	
			SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	LAST YEAR	AVG. 1967-77
RIO GRANDE BASIN - NM						
<u>Pecos River</u>						
Panchuela	3/30	1	0.1	5.8	2.0	
<u>Red River</u>						
Hematite Park (B)	3/26	6	2.3	6.1	3.6	
Red River	3/26	12	3.8	8.9	5.5	
<u>Rio Chama</u>						
Bateman	3/30	36	9.3	18.5	11.3	
Chama Divide	3/31	0	0.0	10.0	1.7	
Chamita	3/30	21	5.6	18.2	7.2	
<u>Rio Grande</u>						
Alamitos	3/31	16	5.2	8.3	4.9	
Bernal Trall (B)	-	-	-	-	-	
Big Tesuque	3/27	3	1.0	8.2	4.5	
Cordova	3/30	22	6.5	16.7	10.0	
Elk Cabin	3/30	3	1.0	4.9	2.5	
Gallegos Peak	3/27	9	3.2	13.9	-	
Hopewell	3/30	46	12.4	27.2	15.7	
La Cueva	3/27	13	4.1	11.1	5.2	
North Costilla	-	-	-	6.4	-	
Palo	3/25	11	3.4	10.8	6.6	
Payrole	3/30	19	5.8	16.1	6.6	
Quemazon	3/31	38	10.4	14.2	8.5	
Rio En Medio	3/27	10	2.9	13.3	8.3	
San Antonio Sink	3/26	10	2.9	13.4	7.0	
Sandoval	3/30	17	5.1	8.2	5.1	
Senorita Divide	3/27	14	4.3	13.8	5.5	
Taos Ganyon	3/26	0	0.0	6.1	4.2	
Tres Ritos	3/31	9	2.2	6.8	4.7	
<u>Rio Hondo</u>						
Taos Powderhorn	3/31	58	15.9	34.4	-	

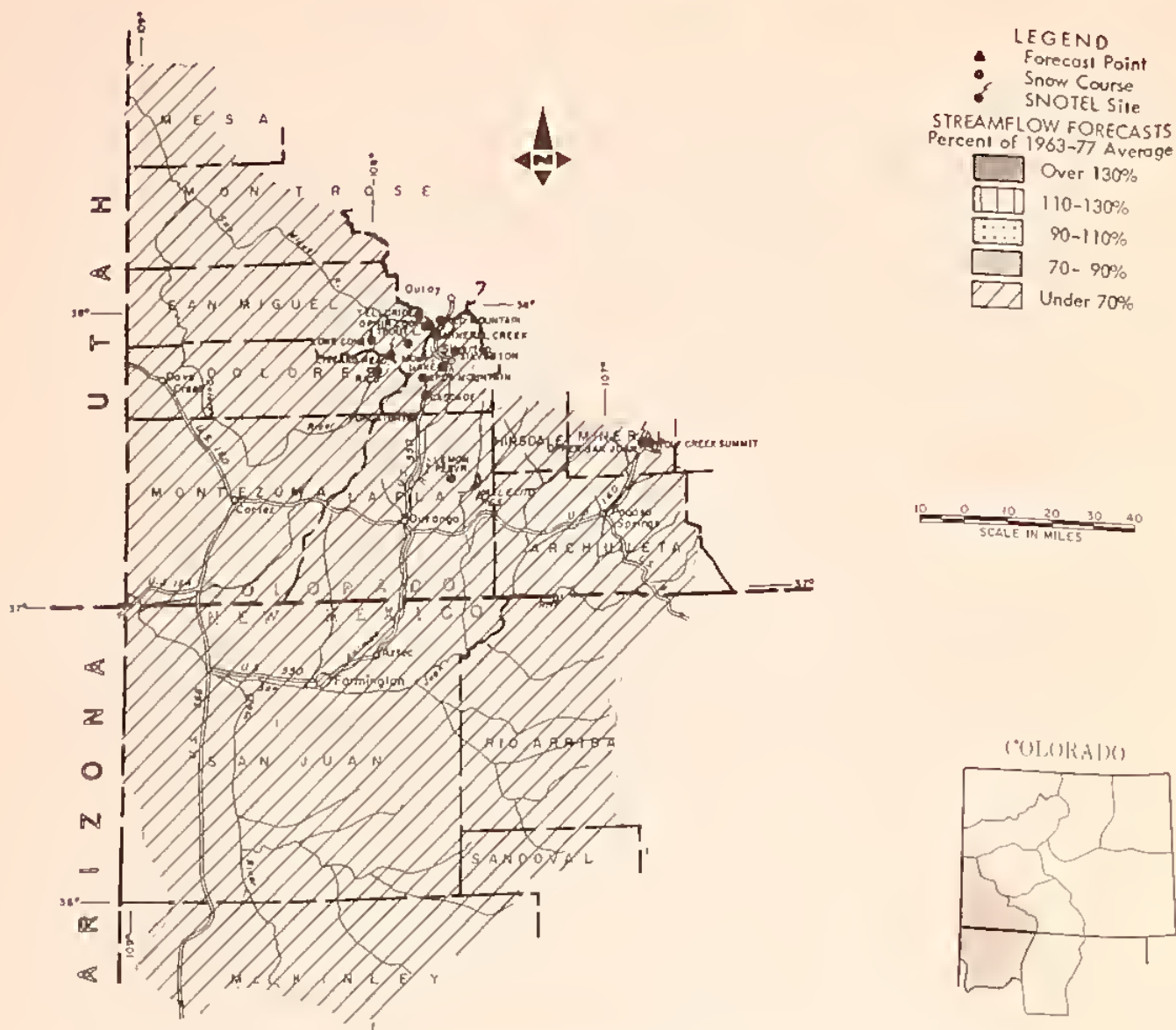
75%-No survey.
(B)-On adjacent drainage.

75%-No survey.
(B)-On adjacent drainage.



Lining ditches reduces conveyance losses and improves irrigation efficiency.

SAN MIGUEL, DOLORES, ANIMAS AND SAN JUAN WATERSHEDS IN COLORADO AND NEW MEXICO



YOUR WATER SUPPLY

SPRING AND SUMMER RUNOFF FORECASTS HAVE INCREASED SLIGHTLY OVER LAST MONTH. THEY NOW RANGE FROM 32 PERCENT ON THE MANCOS RIVER TO 64 PERCENT ON THE LA PLATA RIVER. PRECIPITATION DURING MARCH WAS 150 PERCENT FOR THE MONTH BRINGING THE SEASON'S AVERAGE TO 63 PERCENT. RESERVOIR STORAGE IS GENERALLY AT OR ABOVE AVERAGE FOR MOST RESERVOIRS AFFECTING THE AREA. MUCH OF THE WATER IN THE RESERVOIRS WILL BE NEEDED TO SUPPLEMENT WATER SUPPLIES THIS SEASON. SOIL MOISTURE IN THE AREA RANGES FROM FAIR TO POOR.

STREAMFLOW FORECASTS (1000 Ac. Ft.) April - September

FORECAST POINT	Forecast	% of Average	1963-77 Average
Florida River at Bondad	16	52	31.0
Animas River at Durango	230	54	425.0
Dolores River at Dolores	130	56	233.0
La Plata River at Hesperus	15	64	23.5
Los Pinos River at Bayfield (1)	120	59	204.0
Mancos River near Towaoc (2)	7	32	21.9
Inflow to Navajo River (1 & 3)	365	60	608.0
Piedra Creek at Arboles	100	50	201.0
San Juan River at Carracas	220	59	370.0
San Miguel River at Placerville	75	60	124.0

(1) Observed flow plus change in storage in Vallecito Reservoir. (2) March-July. (3) April-July.

WATER SUPPLY OUTLOOK Expressed as "Poor, Fair, Average, Excellent" with Respect to Usual Supply

STREAM or AREA	Flow Period	
	Spring Season	Late Season
Hermosa Creek	Fair	Poor
West Dolores River	Fair	Poor
Williams Creek	Fair	Poor

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

Basin or Stream and or RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	1963-77 Average
Groundhog	22	0	--	10
Jackson Gulch	10	5	1	5
Lemon	40	23	19	19
Navajo	1696	1230	1014	692
Vallecito	126	60	48	59

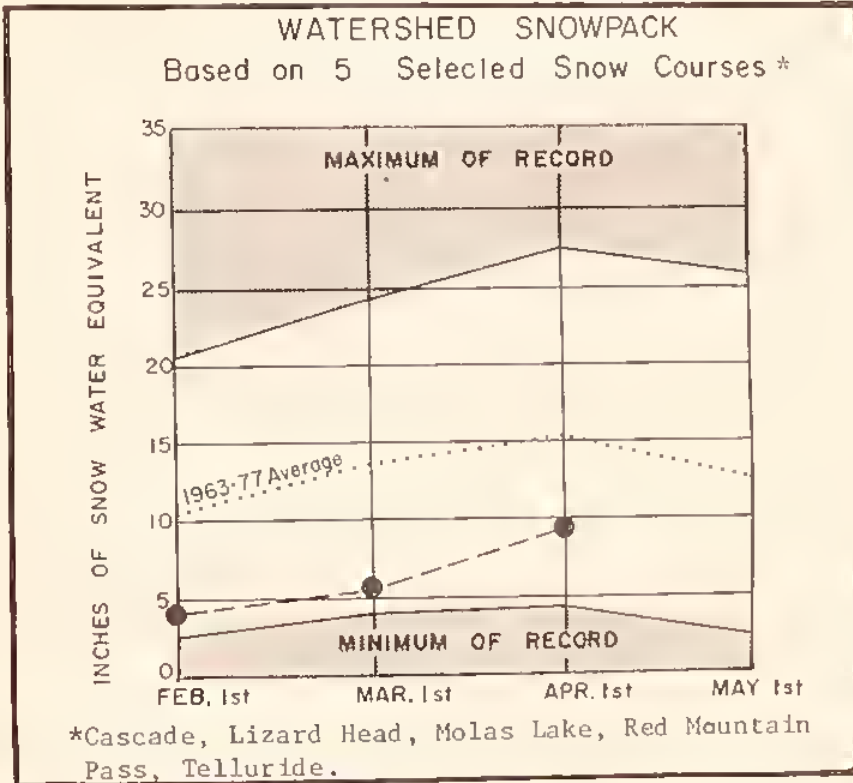
SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	1963-77 Average
Animas	8	29	50
Dolores	5	40	68
San Juan	5	37	68

SNOW COURSE MEASUREMENTS

SNOW COURSE	CURRENT INFORMATION			PAST RECORD	
	DATE OF SURVEY	SNOW DEPTH (INCHES)	WATER CONTENT (INCHES)	WATER CONTENT (INCHES)	
				LAST YEAR	AVG. 61-77
SAN JUAN-DOLORES BASIN					
<u>Animas River</u>					
Cascade	3/27	23	6.8	23.4	10.3
Lemon	3/27	20	5.0	19.6	8.3
Mineral Creek	3/26	27	6.7	23.7	15.0
Molas Lake	3/26	16	4.2	22.2	12.1
Purgatory	3/30	36	10.2	30.5	18.6
Red Mt. Pass (B)	3/26	66	18.3	37.5	29.7
Silverton Sub-Sta.	3/26	0	0.0	14.1	6.2
Spud Mountain	3/26	35	9.6	37.4	22.1
<u>Dolores River</u>					
Groundhog	3/26	27	7.8	22.4	--
Lizard Head	3/31	44	11.4	25.4	16.8
Lone Cone	3/27	48	12.3	25.0	15.7
Ophir Loop	3/25	34	8.6	21.3	--
Rico	3/31	11	4.0	18.0	6.0
Telluride	3/25	20	5.8	11.4	7.1
Trout Lake	3/25	28	7.2	23.1	14.1
<u>San Juan River</u>					
Chama Divide (B)	3/31	0	0.0	10.0	1.7
Chamita (B)	3/30	21	5.6	18.2	7.2
La Plata	3/27	32	10.2	41.9	--
Mancos T-Down	3/27	40	11.8	37.6	--
Upper San Juan	3/30	66	20.0	49.9	28.5
Wolf Cr. Pass (B)	3/30	58	17.5	42.8	25.8
Wolf Cr. Summit	3/30	65	19.2	45.6	28.4

NS-No survey.
(B)-On adjacent drainage.



WATER SUPPLY OUTLOOK BY MAJOR WATERSHED AREAS

-GUNNISON RIVER WATERSHED

Describes water supply conditions in Delta, Gunnison, Cimarron, Shavano, and Uncampahgre Soil Conservation Districts.

-COLORADO RIVER WATERSHED

Describe water supply conditions in DeBeque, Plateau Valley, Mesa, Bookcliff, Eagle County, Middle Park, South Side, and Mt. Sopris Soil Conservation Districts.

-SOUTH PLATTE RIVER WATERSHED

Describes water supply conditions in Fort Collins, Big Thompson, Langmont, Boulder Valley, Jefferson, Teller-Park, Douglas County, Morgan, Kiowa, West Arapahoe, West Adams, East Adams, Platte Valley, Southeast Weld, and West Greeley Soil Conservation Districts. Also describes water supply conditions in Sedgwick, South Platte, Haxton, Peetz, Padroni, Morgan, Rock Creek, and Yuma Soil Conservation Districts.

-YAMPA, WHITE AND NORTH PLATTE RIVERS WATERSHED

Describes water supply conditions in Yampa, Moffat, West Routt, East Routt, North Park, White River, and Douglas Creek Soil Conservation Districts.

-ARKANSAS RIVER WATERSHED

Describes water supply conditions in Lake County, Upper Arkansas, Fremont, Custer County Divide, Fountain Valley, Black Squirrel, Central Colorado, Turkey Creek, South Pueblo, Olney Boone, Cheyenne, Upper Huerfano, Spanish Peaks, Purgatoire River, Trinchero, Western Baca, Southeastern Baca, Two Buttes, Bent, Timpas, Northeast Prowers, Prowers, Kiowa County, West Otero, East Otero, Prairie, Hi Plains, and Double El Soil Conservation Districts.

-RIO GRANDE WATERSHED

Describes water supply conditions in Rio Grande, Center, Conejos, Mosca Hooper, and Costilla, Soil Conservation Districts. Also describes water supply conditions in Upper Chama, East Rio Arriba, Taos, Lindrieth, Jemez, Santa Fe-Pajarito, Sandoval, Tijeras, Cuba and Edgewood Soil Conservation Districts.

-DOLORES, SAN JUAN, AND ANIMAS RIVERS WATERSHED

Describes water supply conditions in San Miguel Basin, Dave Creek, Dolores, Mancas, LaPlata, Pine River, San Juan, San Miguel Basin, and Glade Park Soil Conservation Districts.